
# THE RELATIONSHIP OF THIRD-PARTY CERTIFICATION (TPC) TO SANITARY/ PHYTOSANITARY (SPS) MEASURES AND THE INTERNATIONAL AGRIFOOD TRADE:

# CASE STUDY: EUREPGAP

RAISE SPS GLOBAL ANALYTICAL REPORT #7

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## ACRONYMS

| | |
|---|---|
| BRC | British Retail Consortium |
| CB | Certification Bodies |
| CPCC | Control Points and Compliance Criteria |
| DFID | United Kingdom Department for International Development |
| EU | European Union |
| EUR | Euro |
| EUREP | European Retail Produce Working Group |
| EurepGAP | European Retail Produce Working Group Good Agricultural Practices |
| FAO | Food and Agriculture Organization |
| FICCI | Federation of Indian Chambers of Commerce and Industry |
| GAP | Good Agricultural Practices |
| GBP | Great Britian Pound |
| GmbH | Gesellschaft Mit Beschraenkter Haftung [Limited Liability Company] |
| GMP | Good Manufacturing Practices |
| HACCP | Hazard Analysis and Critical Control Points |
| HDC | Horticultural Development Centre |
| ICM | Integrated Crop Management |
| ILO | International Labour Organization |
| INR | Indian Rupee |
| IPM | Integrated Pest Management |
| ISO | International Organization for Standardization |
| KES | Kenyan Shilling |
| MAD | Moroccan Dirham |
| MRL | Maximum Residue Limit |
| NGO | Non-Governmental Organization |
| SPS | Sanitary and Phytosanitary |
| TPC | Third Party Certification |
| TSC | Technical Standards Committee |
| UK | United Kingdom |
| UNCTAD | United Nations Conference on Trade and Development |
| US | United States |
| USAID | United States Agency for International Development |
| USD | United States Dollar |
| USDA | United States Department of Agriculture |
| WRAP | Worldwide Responsible Apparel Production |
| WTO | World Trade Organization |

# INTRODUCTION: EUREPGAP STANDARDS BACKGROUND

In 1997, a group of European retailers operating under the name, Eurep (European Retail Produce Working Group) designed a private standard, EurepGAP. This private standard, EurepGAP, incorporates good agricultural practices (GAPs) and regulations of the European Union (EU) along with recent customer-driven standards, such as sustainable agriculture, labor, animal welfare and food safety. Currently EurepGAP is supported by 32 retailers mainly based out of Europe (EurepGAP, 2005b). Eurep first developed standards for the fruit and vegetable industry in 2001 and is currently expanding to develop standards for flowers and ornamentals, integrated farm assurance, integrated aquaculture assurance and coffee.

This study was conducted to understand how EurepGAP standards were created, what costs are involved in the certification process, and where the demand is greatest for EurepGAP certification. Interviews were conducted in several European countries with well-known certification agencies, inspection bodies, importers, retailers, non-governmental organizations (NGOs) and regulatory bodies. A review of the current literature was also performed.

Eurep develops a different EurepGAP scheme for each product class. EurepGAP activities for each class are organized by a Steering Committee, a Technical and Standards Committee (TSC), and in some instances national technical working groups. In each class a Steering Committee directs all activities for the class-specific protocol. The TSC consists of 50% retailer and 50% producer representation (EurepGAP, 2005a). This group develops the standard, tests it with Eurep grower members and compares it to other leading schemes. Technical input is gathered and used to refine the protocol for industry acceptance. This input may come from a national technical working group that is established to aid in implementation of the protocol as it relates to national procedures. As demand builds from the retail sector for this standard, certifiers are trained to audit this new standard. The TSC continues to collect input from various stakeholders to create updated versions of the standard. The TSC also works with suppliers in promoting compliance to the new standards. For example, one TSC issued guidance notes to help farmers and growers to become more fully aware of the Maximum Residue Limits (MRLs) in operation in their markets, so that they can remain up-to-date in the fast-changing arena of crop protection product legislation (EurepGAP, 2005d). All activities for every class-specific EurepGAP scheme are supported by the Eurep Secretariat, which is based in Cologne, Germany and is managed by FoodPLUS GmbH.

EurepGAP standards along with other standards were developed in an attempt by European retailers to preserve their reputation amid the numerous food safety scares of the 1990s. Yet, other issues have motivated this change too. A Dutch survey (Nagel, 2004) which asked consumers, “Who is responsible for food safety?”, reported that 63% held government and public inspections responsible while a significant number (25%) believed that food retailers were responsible for food safety.

In order to receive EurepGAP certification, the applicant must fulfill ”Major Musts”, “Minor Musts” and recommendations. The farmer must complete a checklist of 254 questions in which, 41 are considered Major Musts that must be met for certification and 122 are Minor Musts of which only 95% must be met for EurepGAP certification (Nagel, 2004). EurepGAP schemes cover the whole agricultural process from before the plant is in the ground to the completed harvest of the raw end product. According to EurepGAP protocol Version 2.1, farmers can achieve certification by Individual Certification, Group Certification or by applying for a EurepGAP benchmarked scheme certificate as an individual or group (EurepGAP, 2004a). Individual Certification can be accomplished if a supplier interprets the requirements and prepares him/herself for the auditing process. Group Certification is available for suppliers who are unable to attain EurepGAP certification alone. Also known as produce organizations or cooperatives, farmer groups can offer a larger amount of product as a stronger entity which can ultimately share a certification. If an

individual farmer or farmer group is already working under a standards system such as a national GAP system that is similar to EurepGAP's requirements, then they can work to benchmark their standards with the EurepGAP standards. A EurepGAP certificate is issued once; (i) in the registration process, all relevant documentation for the Farmer/ Farmer Group applying for EurepGAP certification is recorded (ii) in the inspection and certification process, all records are inspected, and (iii) one crop must be present in the field or in storage, for inspection (EurepGAP, 2004a)

Some countries and international organizations have questioned whether all the requirements in the EurepGAP protocol for fruits and vegetables are necessary. One complaint with the EurepGAP certification is that some of the requirements are not science-based. Other standards, such as country-specific sanitary and phytosanitary (SPS) standards usually require a scientific analysis or laboratory test from the exporters as proof. Since EurepGAP importers only require EurepGAP certification, how can one know or be assured that it contains science-based standards?

## INTEGRATION OF SCIENCE

In standards development, science and technology provide evidence for decision making, generate indices through scientific measurement and contribute to the legitimization of certain practices. Food safety standards are more easily developed through scientific means than other types of standards. Sometimes food safety standards are first devised through consumer surveys and then supported through scientific measurements. While this is the case, many food safety standards seem to be born out of retailer strategies. They are used to increase market share, to maintain market share and to reduce price. Retailers justify their standards on the basis of market opportunity by simply responding to consumer needs and concerns.

It should also be noted that all standards and certifications depend on values – values that are often quite local in character. For example, acceptable risk levels for certain compounds and diseases vary considerably among importing nations, even though ostensibly all rely on what is essentially the same science. This is due in part to value differences. Put differently, while in the best cases science can estimate the risk from the presence of a given compound or disease, or from the use of a given process, science alone is incapable of telling us what risks are worth taking. Decisions of this sort more often than not rely on rules of thumb, political debates, and accepted wisdom (Busch 2002).

Indeed, some standards have little or no scientific justification. US limits on insect parts in processed foods are more a question of revulsion than of scientific determination of risk. Standards for kosher or halal food, and for country of origin labeling, make no scientific claim but must be met by suppliers to those markets. Standards for the length of the workday and prohibiting child labor are based on social acceptability and social justice as much as technoscience. All of these standards have a role to play in organizing the food system. And, all will likely remain negotiable in light of new knowledge and changing values.

While the retailer-initiated EurepGAP standard does claim that their standards are science-based, numerous stakeholders that were interviewed perceive that EurepGAP standards do not appear to be science-based. For example, in section 8 of the Control Points and Compliance Criteria for Fruit and Vegetables of the EurepGAP protocol version 2.1 – October 2004, the reduction of pesticides is stated as an objective that is to be met through integrated pest management (IPM) and integrated crop management (ICM) strategies, yet these are not reflected in the specific requirements (EurepGAP, 2004b). This section contains 4 points on crop protection (one recommends IPM) which is followed by 60 points describing pesticide usage. None of the 60 points is aimed at reducing pesticides, just the proper use, record-keeping and storage of the chemicals. A recent article proposing EurepGAP as an example of Global Legal Pluralism reported that IPM and ICM are no longer mentioned as an essential part of Good Agricultural Practices in the EurepGAP protocol (van der Grijp, 2004). As the EurepGAP protocol for Fruits and Vegetables is revised away from IPM and ICM and toward more specific food safety requirements, one has to ask “Is EurepGAP just responding to their client’s wishes?” Perhaps IPM and ICM are harder to implement than the current requirements which would cause the supplier members to prefer less stringent IPM/ICM requirements. Through the evolution of the EurepGAP standard, the downsizing of IPM and ICM requirements to one recommendation begs the question, how are food safety standards checked for a scientific rationale?

In EurepGAP standard development, no clear process exists to assure that standards are science-based. The manner in which science-based standards are integrated into the EurepGAP protocol is not formal. The TSC is in charge of the setting standards and has not explicitly advertised a commitment to have a scientific basis for their standards. One way to ensure the scientific basis of standards would be to employ an independent group to critique the requirements of the EurepGAP protocol, but this does not exist. Did the development of EurepGAP certification align with, complement or undermine

the guidelines laid down by Codex Alimentarius, an organization endorsed by the World Trade Organization to offer science-based SPS standards?

Some science-based standards have evolved into technical barriers to trade. For example, a study on the effect of SPS standards on Moroccan exports reported that EU organic regulation limits the use of nitrogen to 170 kg/ha in fruits and vegetables, yet in Morocco this level is not appropriate for vegetable production under its arid and semi-arid climatic conditions (Aloui and Kenny, 2004). Moroccan farmers must use other means to comply with organic standards in Europe.

Exporting countries whose products have been rejected usually seek equivalency with the importing country's standards. One benefit of applying equivalency to food control sanitary measures is that "Unnecessary paper documentation can be reduced, eliminating resource intensive registration, certification and other documentation requirements that are not science-based and provide no identified food safety benefits" according to Nguz (2003).

Failure to comply with EurepGAP standards may be seen as a trade barrier. The EurepGAP protocol, like other retailer initiated standards, has been criticized for having requirements that are not science-based. The EurepGAP protocol also has a reputation for being more stringent than any food safety equivalency standards. For example, a study investigating the cost of compliance to SPS standards in Morocco reported that some tomato exporters selling to the European market were more concerned about the standards required by their customers than by any legal, international or science-based standards (Aloui and Kenny, 2004).

## DEMAND FOR CERTIFICATION

The EurepGAP protocol has steadily gained popularity in European markets. By the end of 2003 two Dutch supermarket surveys reported that 100% of the Dutch supermarkets were participating in a EurepGAP program in which more than 85% of all the fresh fruits and vegetables were sold as EurepGAP certified (Nagel, 2004). Since the Eurep distributors were required to accept only EurepGAP-certified produce after January 2004 (Plantconsult, 2003), increasing activity in upgrading farms to the EurepGAP standard has been observed in South America (about 80 certified growers mainly in Brazil, Chile, Colombia and Peru), Africa (over 1,100 certified farms, of which 926 in South Africa, 116 in Egypt, 8 in Kenya), Asia (India) and Australia and New Zealand (423).

Most of the countries listed are large exporters to Europe, so observing an increase in EurepGAP certifications is not surprising. Certification of EurepGAP standards represents a large change in ways of doing business since most of the retailer-initiated standards have emerged in the last ten years. Large private retailers have required their own strict standards in addition to the mandatory food safety requirements. These give increasing attention to process standards, in addition to product performance requirements. The Institute for Trade and Development (2004) asserts that the stringent product and process standards require a level of technical competence, technical support packages and new management methods which *de facto* symbolizes a move to high-precision agriculture/horticulture. Developing countries will have a difficult time adjusting to this shift to a more technically precise method of production of food products. According to Plantconsult (2003), small-scale growers will have certainly lost their export marketing position after January 2004 when EurepGAP members, distributors and retailers are required to deliver certified fresh produce exclusively with EurepGAP. This deadline was extended to January 2005 as reported in Kenya by The Daily Nation (2004). The horticulture producers in Kenya who achieved EurepGAP certification could export their produce, while the producers who did not attain certification were apparently rejected from the European market and forced to sell their produce locally. Presently, no published data exists to coraborate this current denial of access to European markets. As market access becomes more dependent on strict food quality standards, such as EurepGAP, producers must comply with these "*de facto* mandatory" standards or find other places to market their crops. Therefore, the increase in demand for EurepGAP certification reflects a need for market access which, in turn, incurs higher costs of compliance.

## COST OF CERTIFICATION

The cost of implementing the EurepGAP system can vary widely depending on the technical competence of producers and the country of production. In developing nations, much work on infrastructure needs to be accomplished before EurepGAP standards can be fulfilled. In contrast, producers in developed countries have a competent infrastructure and possibly a set of national regulations or good agricultural practices (GAPs) which allow a quicker, cheaper and easier transition to EurepGAP compliance.

Since the EurepGAP protocol was designed with GAP as a foundation (EurepGAP, 2005a), a comparison of costs between EurepGAP and national GAP standards should illustrate the differences and/or similarities. A national GAP program is a voluntary governmental guideline countries which ensures food safety. Producers that comply with national GAP standards will have better quality produce and could have an edge in their domestic markets. In many developing countries, national GAP certification is being pursued by producers to gain better access to markets in developed nations. An NGO pamphlet shared during the interviews states that a national GAP system is being developed at the local-level in Africa's Sudan-Sahel zone using international regulatory frameworks as guides (FAO, 2005a). An attractive aspect of country-specific GAPs to producers is that it usually has a low input cost and a good return on investment. The increased demand for country-specific GAP, the variance in quality output and the rise in multiple retailer certifications has persuaded one of our interviewed stakeholders to pursue a global GAP standard that solely focuses on the harmonization of food safety parameters. This approach is different than EurepGAP which includes social and environmental requirements. This global GAP standard aims to reduce multiple certifications for the grower and to provide a uniform standard of produce quality, since they have noticed variance in the quality of national GAP-certified produce between countries.

If one considers United States (US) GAP certification, an audit in 2003 for a fresh fruit and vegetable farm cost approximately USD 600-1,000 (Garrett et al., 2003). However, the cost of designing and implementing an on-farm food safety program is difficult to estimate. It varies depending upon (i) number and size of farms, (ii) number of water sources used, (iii) ability of growers to develop food safety program documentation themselves, (iv) increased labor costs, (v) cost of chemical and microbiological tests, (vi) employee training session costs and (vii) capital equipment costs to assure that people, water, and soil amendments do not contaminate produce (Garrett et al., 2003). Producers who are unable or unwilling to invest in their respective national GAP programs run several food safety risks, such as contamination and recall. The 2003 Hepatitis A outbreak in Mexican green onions caused the cost of food safety verification to skyrocket for Mexican producers. According to Avendaño and Schwentesius' study on competitive factors of horticulture production and export in Mexico as cited in Calvin et al. (2004), the total costs for Mexican green onion growers to become US GAP and good manufacturing practices (GMP) compliant ranged from USD 700,000 to 2,500,000 in the aftermath of the Hepatitis A outbreak.

Similar concerns exist with producers aspiring to enter the EU market. Producers that desire to enter the European market have an increasingly difficult time as the number of requirements rises. Initial compliance can be the most costly aspect of gaining EurepGAP certification when compared to re-certification fees. According to a World Bank study on compliance issues with SPS standards, the cost to US producers for initial compliance to the EurepGAP Fruit and Vegetables standard begins at approximately USD 40,000 with annual costs of re-certification near USD 5,000 (Lamb et al., 2004). One cherry farmer in British Columbia, Canada estimates that his cost for compliance with EurepGAP's demands was approximately USD 10,000, including construction of a secure, weatherproofed, fluorescent-lit, fan-equipped and compartmentalized structure to store his pesticides (Johnson, 2004). These costs for initial compliance in two developed countries scored below USD 50,000. In the developing country of Morocco, the initial cost of compliance with the EurepGAP

standards for a 10 ha tomato farm was MAD 647,600 (USD 72,800) which included new buildings and facilities, equipment, training, monitoring and surveillance and certification (Aloui and Kenny, 2004). Even though many factors are different in these comparisons, such as product type and production area, the trend of the initial costs of compliance for EurepGAP certification is generally higher in developing countries as compared to developed countries.

Re-certification costs are usually less than the initial cost of compliance, which is usually applied to infrastructure. In England, the cost of an audit for EurepGAP in ornamental plant production costs GBP 5,000 (USD 8,800) as reported by the Chairman for the British Ornamental Plant Producer organization (Kearton, 2005). In Indian grape production, a EurepGAP certificate costs INR 75,000 per farmer (USD 1700) which includes the cost of constructing a separate storage space for fertilizers and pesticides, etc.) (Rabo India Finance Pvt. Ltd, 2005). According to a World Bank study of compliance costs in Thailand, an asparagus farm will initially spend USD 3,248 to set up a EurepGAP system and over USD 8,000 each for a British Retail Consortium (BRC) and Hazard Analysis and Critical Control Points (HACCP) system (Manarungsan et al., 2004). In each of the above examples, producers have paid the necessary fees to be EurepGAP certified. In Africa costs can be higher, and some EurepGAP certified producers have even paid the additional cost of compliance, but have unfortunately not received premium prices for their products. By contrast, organic producers normally receive their premiums (IPM Europe, 2002). If one compares the costs of EurepGAP certification with the costs of US GAP certification discussed in the preceding paragraphs, one will see that implementation costs can be expensive for both standards, yet it seems that the cost of a EurepGAP audit is higher than a US GAP audit.

Third party certifiers are important players in helping develop national GAP-certified food safety programs and EurepGAP certifications for growers. Certification bodies (CBs) that wish to certify to EurepGAP standards need to be accredited to the EN 45011 or ISO 65 (International Organization for Standardization) standard by an accreditation body. EurepGAP has accredited more than 80 certification bodies as meeting its international standards and these bodies operate in more than 60 countries worldwide (EurepGAP, 2005b). In addition to the cost of national accreditation to EN 45011 or ISO 65, the cost for CBs to be EurepGAP-approved is EUR 2000 (USD 2,385) (EUR 1500 (USD 1,789) for EurepGAP members) while the farmer is charged for a certificate license fee of EUR 20 (USD 23.85) per certificate/year, and a EUR 5 (USD 5.96) registration fee/grower (Amariei, 2004).

According to a survey of US buyers, the application of good agricultural practices in fruit and vegetable production outside of the US is expanding rapidly, yet movement toward EurepGAP certification is occurring at a much slower pace, i.e. limited to firms that have already been targeting the EU market (Lamb et al., 2004). Non-EurepGAP compliant suppliers risk losing both European and domestic market shares with retailers that demand EurepGAP certification (United Nations Trade and Development Board, 2005).The significance of compliance has been so extensive that some governments have begun subsidizing producer's efforts to comply with the private EurepGAP standard. On July 21st, 2005, the Government of Pakistan announced its fiscal policy for 2005-2006 which allowed a 50% subsidy on cost of EurepGAP certification in addition to the various other certifications like ISO 14000, ISO 17025, HACCP, Worldwide Responsible Apparel Production (WRAP) and Eco-Labeling (Khan, 2005).

The cost of compliance to EurepGAP standards is acting as a trade barrier between the "haves" and the "have nots." Many developing countries do not have the capacity to meet the EurepGAP requirements. The Steering Committee for EurepGAP Fruits and Vegetables has realized this discrepancy and is trying to reduce the cost of compliance by providing benchmarking options for existing food safety schemes. However, these schemes rarely exist in poor countries, which usually has limited local expertise (IPM Europe, 2002). Thus, the lack of necessary resources in some developing countries has prevented the possibility of EurepGAP certification.

# STATE OF EUREPGAP CERTIFICATION IN DEVELOPING COUNTRIES

Some producers in developing countries who use national GAPs and are not certified for EurepGAP have made the argument that the standards are similar enough to be equivalent. However, according to information shared by a reputed accreditation body regarding the procedures of EurepGAP, any proposal on establishing a special, less strict version of EurepGAP for developing countries cannot guarantee the customer's requirement. (Garbutt and Hofmans, 2001). Since, EurepGAP is designed to be certified on a global scale, producers in developing countries must interpret the EurepGAP protocol within their specific regional conditions. If their interpretation is different than what is listed on the EurepGAP protocol, it would need to be approved for harmonization by the EurepGAP TSC (Garbutt and Hofmans, 2001).

Once a country's national scheme is benchmarked with the EurepGAP standard, producers in that country who gain certification to the national standards will also achieve compliance to EurepGAP standards. China, Kenya and Mexico are the most recent countries that are hoping to benchmark their national schemes with EurepGAP standards through a transparent comparison of standards and an agreement to adhere to them through contractual obligations agreed upon between the standard owners and EurepGAP (EurepGAP, 2005b).

If a developing country's national scheme is not benchmarked to EurepGAP standards, then the producers or producer organizations need to gain certification on their own. Producers in developing countries lack the necessary resources to achieve this. Some of the main challenges for producers in developing countries to attain EurepGAP certification are (i) organizing the growers into viable groups, (ii) interpreting the EurepGAP requirements, (iii) the high cost of certification, (iv) costly lab tests and (v) obtaining training from bona fide trainers (EurepGAP, 2005c). Training smallholders to receive EurepGAP certification should not only be performed by governmental organizations, NGOs and universities, but also multi-national corporations and the private sector according to the perspective of a well-known accreditation body (Garbutt and Hofmans, 2001). An example is found in the Federation of Indian Chambers of Commerce and Industry (FICCI) which is training farmers on 15 to 20 farms/orchards in India to establish a certifiable EurepGAP system (Lal, 2003). This will hopefully lead to an improvement of agricultural practices, increased yields, improved quality and accelerated exports of agricultural produce. COLEACP/PIP is targeting their support to exporters since they decide whether or not to buy from outgrowers (Stinglhamber, 2005). Producers in developing countries can only access markets dominated by EurepGAP standards if they receive aid from outside sources.

## STRENGTHS

Kenya has received much attention with respect to compliance to EU standards in order to reach the European market. Kenyan exporters of horticultural goods have organized the growers into groups ready for certification. The United States Agency for International Development (USAID) and the United Kingdom Department for International Development (DFID) have invested in training and quality management systems in order to help these growers to reach compliance. Kenyan agronomists and exporters are working with these organizations to benchmark the KenyaGAP protocol with EurepGAP during the summer of 2005 (EurepGAP, 2005c). A preliminary report released from the USAID-funded Horticultural Development Centre (HDC) suggests that EurepGAP certification for the average Kenyan smallholder group of 45 growers will cost at least USD 20,000 (New Agriculturist On-line, 2005). Support from DFID for horticulture development in Kenya has totaled GBP 582,000 (USD 1,024,611) in the last two years with an additional GBP 290,000 (USD 510,545)

that will be spent by June 2006 (Secretary of State for International Development, 2005). Much of these funds are spent assisting smallholders to cope with the process and cost of compliance with EurepGAP standards.

The cost of certification is high due to a lack of internal competition. Only one local certification body operates in Kenya among many active external organizations. An estimate by an NGO of the overall cost of certification for Kenyan vegetable farmers was EUR 325 (USD 695) as shared by a leading certification agency (NAK AGRO Consortium, 2004). This cost is only feasible for the local producers if aided by outside support. In 2003, none of the Kenyan smallholders were EurepGAP certified, yet today, governmental agencies, NGOs and Exporter Associations are helping smallholders and exporter groups toward EurepGAP certification (NAK AGRO Consortium, 2004).

Kenya also has also made progress in the cut flower industry as a supplier to the European Union. The Kenya Flower Council has organized it members and non-members to be certified through an EU auditor. Individual flower farms are required to pay auditors KES 30,000 (USD 400) per day in addition to their travel and accommodations (Mulunda, 2005). Farmers must first comply with International Labour Organization (ILO) conventions and Kenyan laws in order to be considered for EurepGAP certification (Mulunda, 2005). Farmers aiming for EurepGAP certification are looking to Bureau Veritas, a large international certifier. This comes at the high price of KES 84,700 (USD 1,100) plus auditors' subsistence allowance and transport expenses (Mulunda, 2005). A new certifying company, Africert, recently began operations in Kenya by targeting small-scale farms with a lower certification cost of KES 41,000 (USD 560) for the whole process (Mulunda, 2005).

In Ghana, the products of Blue Skies Company Limited are certified to meet the EurepGAP protocol for quality practices. They process fresh cut chilled pineapple, mangoes, watermelon, passion fruit and papaya for export. Farmers who produce for Blue Skies receive free technical training and advice from Blue Skies staff , while experts from Europe and South Africa ensure their compliance with EurepGAP standards (FAO, 2005b). Blue Skies spent close to USD 82,000 in order to receive a EurepGAP certificate (Boselie and van de Kop, 2004). The certification of farmers, training in EurepGAP standards and prompt payment with competitive prices has guaranteed a steady supply from producers (FAO, 2005b). Certification to EurepGAP standards, as shown in these examples and others, can bring about effective trade with developing nations.

## WEAKNESSES

Although EurepGAP has been exalted by some observers, other opinions have been less favorable. A leading NGO perspective that was shared during an interview criticized the EurepGAP protocol as being vague in some environmental (IPM practices) and social (workers' health) aspects. This point of view was also supported by a study done by Dankers (2003). Also, in a case study of the horticulture export sector in Ghana, authors report that four key issues were simply not being addressed by the EurepGAP protocol: (i) social and economic welfare of workers and smallholders, (ii) institutional capacity, (iii) local expertise in supply chain analysis and management, and (iv) infrastructural development (Boselie and Muller, 2002).

In developed countries, the previously criticized issues have already been addressed by governments or other organizations. In developing countries where the capacity and infrastructure are neglected, these disparities must be identified and rectified. One disparity that was mentioned in the information gathered during an interview with a well-known NGO [and also elaborated by Danker's (2003) study on standards, certification and labeling] is that the EurepGAP protocol is aimed at large-scale producers who have the human and financial resources to implement and monitor the EurepGAP "management system."

Not only is compliance to EurepGAP standards favored among larger companies in developing countries, but developed countries show more compliance in general. For example, as of August 2003, the Netherlands and the United Kingdom, accomodated more than two-thirds of the companies which are certified as EurepGAP compliant (Jaffee and Henson, 2005). Producers that achieve EurepGAP certification must be motivated by accessibility to markets or other economic incentives because to date no published data has been found to show that premium prices were paid for EurepGAP-certified produce.

It appears that EurepGAP has had to take certain measures to become more accepted abroad, such as allowing countries to benchmark their standards with those of EurepGAP. EurepGAP has also pursued harmonization in food hygiene and MRLs for pesticides in food, yet has only partly been successful. Various interviewed stakeholders observed that the lack of harmonization is attributed to non-involvement of all retailers and differing governmental regulations across Europe. This is also supported by Danker's (2003) study on the certification and labeling of environmental and social standards.

## OPPORTUNITIES/BENEFITS

An obvious benefit of attaining EurepGAP certification is that the producer will gain access to the intended market. Other benefits include producing a higher quality product, being more environmentally sustainable, improving worker welfare, etc. This compilation of standards in the EurepGAP protocol assures retailers that their important issues are taken into account, while at the same time, saving producers the extra time, energy and money that they would have needed to attain certifications for each of these issues individually. For example, EurepGAP's Integrated Farm Assurance combines multiple standards into one certification. In the Control Points and Compliance Criteria (CPCC) for Integrated Farm Assurance, EurepGAP officials have listed three benefits of this certification: reduced food safety risk, lower cost of compliance by avoiding multiple product audits and increased integrity of Farm Assurance Schemes (EurepGAP, 2004b).

Many other benefits that aren't necessarily advertised come with EurepGAP certification. For example, growers in Ghana were pleased with the various benefits of the EurepGAP protocol, such as guaranteed markets with Blue Skies and training in the use of agrochemicals for their health and safety and the environment (Boselie and van de Kop, 2004). In India, the Maharashtra State Agricultural Marketing Board assured EurepGAP-certified growers that long-term benefits will include a more motivated work force due to improved facilities, training and better working conditions and ultimately an increase in living standards (Maharashtra State Agricultural Marketing Board, 2005).

## RECOMMENDATIONS AND CONCLUSIONS

If developing countries are going to effectively compete in the international community, they need to develop effective food safety and food control systems. A EurepGAP certification offers market access mainly in European markets, yet the process and cost of obtaining a EurepGAP certification could be an obstacle for smallholders. The cost can vary among producers and locations. Even when some smallholders are denied access to certain markets due to high costs, the demand for EurepGAP certification seems to be growing in developing countries. The increasing number of EurepGAP members (n= 30) indicates a more prevalent demand for EurepGAP certification, especially among developing country suppliers. A United Nations Conference on Trade and Development (UNCTAD) workshop on market access/entry and export competitiveness in the horticultural sector concluded that EurepGAP has taken the place of various regional, product group and retailer specific standards and has incorporated regulatory requirements on HACCP, maximum residue levels, and traceability (Institute for Trade and Development, 2004). Yet, the "*de facto* mandatory" standards that EurepGAP requires incur high costs for smallholders from developing countries. EurepGAP officials could lower the cost of a certification audit in order to offset the initial investment of training and/or infrastructure. This could allow greater access to producers in developing countries. Other options include contract farming, group farming, outgrower schemes and cooperatives. When efficiently managed, contract-farming systems are an option for smallholders to escape exclusion from export markets (IPM Europe, 2002). Contract farming can lead to increased wages, even though it might take away some freedoms such as pesticide regimes or selling the product in a different market. Smallholders working together as a producer organization will more likely be able to attain contracts for farming as well as working with exporters and attaining certifications. Smallholders could also be involved in an outgrower scheme. It is managed by an independent agri-business or academic institution which provides resources, training and set prices for the smallholders who in return supply the labor and land for production. In a cooperative, the producers obtain membership into the cooperative and democratically control a board of directors who manages the resources and services. According to a USDA report on cooperative benefits (1990), producers that are members of a cooperative earn and increased income, which ultimately flows back to improving the community.

Growers in developing countries can choose to strive for EurepGAP certification, yet they might not have the necessary resources to reach compliance. They need support in the form of financial contributions, capacity building, training, and economically feasible auditing procedures (IPM Europe, 2002). These sentiments were shared in the Food and Agricultural Organization (FAO) consultation on GAPs. In 2003 it reported that strategies to avoid exclusion of smallholders include (i) providing sufficient education and training (ii) fostering the development of the institutional infrastructure necessary to accomodate GAPs within a developing country environment, such as third party monitoring and quality verification systems, (iii) encouraging the development of farmer associations or cooperatives to provide GAP information to smallholders and to improve the bargaining power of individual farmers with regard to larger retailers or processors (Hobbs, 2003).

International aid organizations can support developing countries by investing in capacity-building. Four areas of needed capacity building include training, infrastructure development, development of communication and information, and development of legislation (Jukes, 2003). Recent reports from Kenya that were previously discussed exhibit the success of such investments. Capacity building should aim to include smallholders who can otherwise easily be excluded from support. In order to make EurepGAP accessible to small-size export operators and small-scale outgrowers, it should be introduced by locally trained trainers (Plantconsult, 2003). Investing in capacity building will enhance the standard of living for people in developing countries.

As developing countries receive support and resources to achieve EurepGAP certification, developed countries who have the necessary resources are finding barriers to trade in the application of science in the standards. EurepGAP is self-disclosed as the "Global Partnership for Safe and Sustainable Agriculture" yet its "scientific" parameters seem vague and unadapted to developing countries. Some requirements may not be useful or applicable in varying climates or soil types. One area of contention within the EurepGAP standard is the description of IPM and ICM standards. EurepGAP only has one compliance criterion indicating IPM even though it is a main objective listed at the beginning of the normative document. We believe that pesticide reduction measures such as IPM should be built up in the next revision of the EurepGAP protocol. Some might argue that IPM and ICM requirements would make compliance harder for smallholders. While this might be true in the initial implementation, the financial, environmental and health benefits that result from compliance will outweigh any preliminary stumbling blocks.

The EurepGAP Global Conference was held in Paris on October 17, 2005 and provided EurepGAP members and users an opportunity to converse about the upcoming 2007 version of the EurepGAP protocol. The Technical and Standards Committees for each product class met to discuss current revisions to their appropriate standards. They have asked conference attendees to consider the following issues; ICM, emerging hygiene issues, environmental indicators, MRL issues, improved reliability of laboratory results, worker welfare or Good Social Practices, and customized certification processes (EurepGAP, 2005e). Our hope is that our recommendations, such as the adjustments of section 8 of the EurepGAP Control Points & Compliance Criteria to encourage reduced pesticide use, align with the revisions discussed during the conference and can be considered before finalization of the 2007 Version.

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